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| 09/934,438   | 08/22/2001  | Ulrich Pilz          | 31901-174858              | 7308             |
| 26694  | 7590        | 09/24/2004           | EXAMINER<br>CHEN, WENPENG |                  |
| VENABLE, BAETJER, HOWARD AND CIVILETTI, LLP<br>P.O. BOX 34385<br>WASHINGTON, DC 20043-9998 |             |                      | ART UNIT<br>2624          |                  |
|  |             |                      | PAPER NUMBER              |                  |

DATE MAILED: 09/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/934,438

**Applicant(s)**

PILZ, ULRICH

**Examiner**

Wenpeng Chen

**Art Unit**

2624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5, 6, 8-13 and 15 is/are rejected.
- 7) ☒ Claim(s) 4, 7 and 14 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 August 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. ____.  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>5</u> .   | 6) <input type="checkbox"/> Other: ____.                                    |

***Drawings***

1. The subject matter of this application admits of illustration by a drawing to facilitate understanding of the invention. Applicant is required to furnish a drawing under 37 CFR 1.81. No new matter may be introduced in the required drawing.

For example, without a drawing, it is hard to understand the exact meaning of the description shown in page 6, lines 21-31.

***Specification***

2. In page 1, line 6 and page 3, lines 12-15, the Applicant referred to Claim 1 and/or Claim 10. The Examiner recommends including all the recitations in Claims 1 and 10 into their respective locations in the specification at this stage, because these claims may be amended or renumbered in the examination process. When these claims are amended, they may create "new matter" issues. When they are renumbered, the references would not be correct.

3. The Examiner recommends segmenting the specification to the following section and adding their section headings to facilitate future reading and search: Background of the invention, Brief summary of the invention, Brief description of the drawing, and Detailed description of the invention.

***Claim Rejections - 35 USC § 102***

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4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-3, 6, 8-13, and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Gormish et al. (US patent 5,659,631.)

Gormish teaches an image encoding method for transforming an image into a data bit sequence under resolution into a plurality of pixels individually numbered or provided with pixel coordinates, to which corresponds in each case a luminance value and/or chrominance value from a plurality of predetermined luminance values and/or chrominance values,

-- characterized in that each of the luminance values and/or chrominance values occurring in the image, are allocated the numbers or pixels coordinates of the pixels having said luminance value and/or chrominance value; (Figs. 1(a)-1(c); column 4, line 28 to column 5, line 19; For example, the index map of color plane 7 teaches that "color 7 that corresponds to a combination of a luminance value and a chrominance value occurring in the image is allocated pixels coordinates of the pixels having color 7. In this example, the plurality of predetermined colors, each corresponding to a combination of a luminance value and a chrominance value, are 16 colors.)

-- characterized in that in a first step, the image is examined as to which of the predetermined plurality of luminance values and/or chrominance values occurs in the image, and in a second step, each of the detected luminance values and/or chrominance values are allocated

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the numbers or pixel coordinates of the pixels having said luminance value and/or chrominance value; (Figs. 1(a)-1(c); column 4, line 28 to column 5, line 19; Only four colors exist and are selected from the 3 x 3 block.)

-- characterized by the realization as processing of a primary data bit sequence for obtaining a secondary, in particular compressed or reduced data bit sequence, luminance values and/or chrominance values having no pixel allocated being not encoded in the secondary data bit sequence; (Figs. 1(a)-1(c); column 5, lines 15-19)

-- characterized in that for data reduction, those luminance values and/or chrominance values having a number of pixels allocated falling below a determined threshold value, are not encoded; (Figs. 1(a)-1(c); column 5, lines 15-19; The threshold is 1.)

-- characterized in that the image is subdivided into partial images in a predetermined order, in which partial images the pixels are in each case separately numbered or provided. with pixel coordinates; (column 9, lines 4-11; The image is divided into N bands. Each is coded separately.)

--for Claim 8, characterized in that particularly relevant parts of an image are predetermined, in which the non-encoding of those luminance values and/or chrominance values is suppressed, which have a number of pixels allocated falling below a determined threshold value. (For this limitation, the Examiner considers each band is a particularly relevant part because there is no specific definition of the part. As discussed above, the cited passages thus meet this requirement.)

For Claims 10-13 and 15, Gormish also teaches a corresponding image encoder (Fig. 2) for realizing the above-discussed image encoding methods. Evidently, Gormish also teaches:

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-- characterized by a luminance value/chrominance value detection means connected to an input of the pixel allocation means for examining, in particular in a scanning manner, the image for the occurring luminance values and/or chrominance values; (To generate the color plane map, the scanning sequence of P00, P01, P02, P10, P11, P12, P20, P21, and P22 is used.)

-- characterized by a digital input for receiving a primary data bit sequence, and a digital output for outputting a secondary, in particular compressed or reduced data bit sequence; (Fig. 2)

-- characterized by a luminance/chrominance threshold value discriminator and a counter means connected to the output of the pixel allocation means for counting the pixels allocated to the individually occurring luminance values and/or chrominance values, which counter means is connected to the input of the luminance/chrominance threshold value discriminator the luminance/chrominance threshold value discriminator and the counter means cooperating in such a manner that luminance values and/or chrominance values having a number of pixels allocated falling below a predetermined threshold value, are not encoded and are not outputted. (As discussed above, color planes are coded according to their appearing counts. Inherently, there is a counter. Color planes of zero count are not coded. The discriminator is used to determine a color value of a pixel.)

### ***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary

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skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gormish et al. (US patent 5,659,631) as applied to Claim 1, and further in view of Burrows (US patent 6,005,503.)

Gormish teaches the parental Claim 1. Gormish further teaches that the order of the color to be coded can be fixed with a table providing colors to be mapped. (column 6, lines 27-32; Obviously, the order can be from color 0 to color 15.)

However, Gormish does not teach the feature of "the pixels allocated to a determined being in each case preceded by a value characterizing the distance to the preceding luminance value" as recited.

Burrows teaches to code the difference between two adjacent integers to reduce the amount of the resultant coded data of a set of integers. (column 4, lines 28-38)

It is desirable to improve overall compression efficiency. It would have been obvious to one of ordinary skill in the art, at the time of the invention, to use Burrows' coding method to compress Gormish's table of to be transmitted integers because the combination improves overall compression efficiency. The combination thus teaches the feature:

-- characterized in that the pixels allocated to the occurring luminance values and/or chrominance values are indicated in a predetermined order of the luminance values and/or chrominance values, the pixels allocated to a determined luminance value and/or chrominance value being in each case preceded by a value characterizing the distance to the preceding luminance value and/or chrominance value.

***Allowable Subject Matter***

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8. Claims 4, 7, and 14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter. The prior art fails to teach the method of Claim 4 which specifically comprises:

-- characterized in that *the pixels are allocated pixel coordinates as value pairs of Cartesian coordinates or polar coordinates, and the pixel coordinates are indicated in the secondary data bit sequence as value pairs*, whereas the luminance values and/or chrominance values with which the pixels are associated, are encoded as individual numerical values.

The following is a statement of reasons for the indication of allowable subject matter. The prior art fails to teach the method of Claim 7 and the encoder of Claim 14 which specifically comprise:

-- characterized in that *those pixels, the luminance values and/or chrominance values of which are not encoded, are allocated to the next adjacent luminance value and/or chrominance value.*

#### **Conclusion**

9. The prior art made of record in form PTO-892 and not relied upon is considered pertinent to applicant's disclosure.



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10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wenpeng Chen whose telephone number is 703 306-2796. The examiner can normally be reached on 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David K Moore can be reached on 703 308-7452. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9306 for regular communications and 703-872-9306 for After Final communications. TC 2600's customer service number is 703-306-0377.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 305-4700.

Wenpeng Chen  
Primary Examiner  
Art Unit 2624

September 20, 2004

